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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,389	02/15/2001	Ghassan Semaan	453.06	3002

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

COFFY, EMMANUEL

ART UNIT	PAPER NUMBER
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2157

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DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/784,389

Applicant(s)

SEMAAN ET AL.

Examiner

Emmanuel Coffy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to the application filed on February 15, 2001. Claims 1-15 are pending and are directed to a method, for "Address Resolution Protocol To Map Internet Protocol Addresses To a Node Transport Identifier."

#### ***Specification***

2. The Abstract of the disclosure is objected to because it may not exceed 150 words. Appropriate correction is required. See MPEP § 608.01 (b).

#### ***Claim Objections***

3. Claims 2 and 8 are objected to because of the following informalities: a colon (:) should be added after "of" in the preamble of claim 2; the word "is" makes for an awkward construction of the sentence in claim 8. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beser et al. (US 6,654,387) in view of Akatsu et al. (US 6,378,000).

As for claim 1, it recites the definition of a table maintained in each network element, assigning an identifier within the first protocol for each network element, assigning an address corresponding to the second protocol, associating the first

protocol identifier with the address corresponding to the second protocol and an update timer with each protocol identifier.

Baser teaches the maintenance of a network address table such as an Address Resolution Protocol Table. (See col. 3, lines 13-15). Baser further teaches associating a time value with a network address at col. 31, lines 43-48. Baser fails to address the address mapping with identifier assignment.

However, Akatsu discloses a method for address mapping in a network with identifier assignment at col. 3, lines 30-55.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of the maintenance of a network address table taught by Baser with the method for address mapping disclosed by Akatsu.

Such system would provide a method to map IP address to another protocol address and prevent entries in the tables from becoming stale by flushing the tables at the expiration of a specified time.

A user may enjoy improved resource allocation and security in such system.

Therefore, claim 1 is rejected.

As for claim 2, it recites propagating the first network protocol identifier from each network at periodic intervals, resetting the update timer, removing a network element from the table if the timer reaches a pre-determined count value.

Baser teaches this timer concept extensively at col. 31, lines 41-51 and the propagation at periodic interval at col. 29, lines 29-38.

As for claim 3, it recites the step of defining a port number for each network element in the first network.

Microsoft Computer Dictionary (5<sup>th</sup> Ed.) defines port number as a number that enables IP packets to be sent to a particular process on a computer connected to the Internet. Some port numbers are "well known" numbers, are permanently assigned; for example, e-mail data under SMTP goes to port number 25.

Furthermore, Baser discloses the use of port number associated with a process on Table 2 (col. 10) and Fig. 17 . Therefore, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of associating port number with a process as disclosed by Baser with the method for address mapping disclosed by Akatsu.

This provides for a well architected network and claim 3 is rejected in further view of Microsoft Computer Dictionary. Applicant is advised that "Official Notice" is henceforth taken on the above matter.

As for claim 4, it does not recite any new significant limitation above and beyond claim 3 and is therefore, rejected for the same reason articulated above.

As for claim 5, it recites the limitation wherein the first network is configured in a ring topology.

A ring configuration topology as disclosed by Akatsu (See col. 9, lines 7-9) is well known and expected in the art. It would have been obvious to use a ring topology to

configure the network disclosed by Akatsu since the ring topology is known as a configuration for a Local Area Network (LAN). Again, a ring topology is well known in the art as a closed loop configuration, which allows a ring network to cover larger distances than star and bus networks.

As for claim 6, it recites the limitation wherein the first network is configured in a point-to-point network.

A point-to-point network as disclosed by Akatsu (See Fig. 5) is well known and expected in the art. It would have been obvious to use a point-to-point topology to configure the network disclosed by Akatsu since the point-to-point topology is known as a communications link in which dedicated links exist between individual origins and destinations. Again, a point-to-point configuration is well known in the art, which allows dedicated links between the origin and destination (satellite/dish antenna as opposed to cable tv systems) in a network.

As for claim 7, it recites the method of claim 5 wherein the first network is a SONET ring network and the first network protocol comprises the Internet Protocol operating over a SONET Data Communications Channel protocol.

Beser teaches the fundamentals of the Internet Protocol (IP) at col. 7, lines 1-8 even referencing the OSI model. Moreover, IP is well known in the art.

Additionally, Akatsu discloses the concept of data conversion from MPEG to SONET protocol. (See col. 9, lines 4-9).

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Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of IP taught by Baser with the method for data conversion from one protocol (MPEG) to SONET disclosed by Akatsu.

Such a system would cover larger distances than a star or bus network.

Therefore, claim 7 is rejected.

As for claim 8, it recites the limitation wherein the method of claim 2 further comprises the step of maintaining a status of each network element in the table. Claim 9, it recites a limitation wherein the status of each network element comprises one of new node, updated node and deleted node.

Applicant explicates the notion of "a status of each network" on page 16, lines 10-15 of the specification. A status field indicates whether the node is new, updated or deleted.

Baser teaches a process of updating the table by deleting a certain network address at col. 31, lines 27-40 (See also col. 34, lines 1-4 and col. 2, lines 31-58). This scheme would enhance the efficiency of the network. Therefore, claim 8 and 9 are rejected.

#### Claims 10-15

These claims do not teach or define any significantly new limitation above and beyond claims 1-9 to warrant particular treatment, and therefore are rejected for similar reasons.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Britton et al. (U.S. 5,425,028) teaches "Protocol Selection And Address Resolution For Programs Running In Heterogeneous Networks."
- Feldman (U.S. 6,055,561) teaches "Mapping of Routing Traffic To Switching Networks."
- Wong et al. (U.S. 6,073,178) teaches "Method And Apparatus For Assignment Of IP Address."
- Weiman (U.S. 6,141,690) teaches "Computer Network Address Mapping."
- Andersen et al. (U.S. 5,974,453) teaches "Method And Apparatus For Translating A Static Identifier Including A Telephone Number Into A Dynamically Assigned Network Address."
- Swenson et al. (U.S. 6,724,724) teaches "System And Method For Resolving An Electronic Address."
- Luciani (U.S. 6,331,984) teaches " Method For Synchronizing Network Address Translator (NAT) Tables Using the Server Cache Synchronizing Protocol."
- Araujo (US 6,393,488) teaches " System and Method for Supporting Internet Protocol Subnets With Network Address Translators."



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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (703) 305-0325. The examiner can normally be reached on 8:30 - 5:00 P.M.

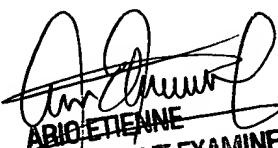
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Coffy  
Patent Examiner  
Art Unit 2157

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EC  
June 14, 2004

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100